

REMARKS

Claims 1 through 11 and new Claim 12 are pending in the application.

Applicants acknowledge with gratitude the Examiner's indication that the claimed invention is patentable in light of the art of record.

Claim 2 has been amended to remove formula (I) and the associated phrase "where $x = 3, 4$ or 5 ." Support for this amendment can be found in the Application-as-filed.

Claims 3 and 10 have been amended to conform to Claim 2.

Claims 3 and 10 have also been amended to reflect that the 2,4,6-substitution groups are selected independently. Support for this amendment can be found in the Application-as-filed, for example in Claim 2 as-filed.

Claim 12 has been added to complete the record for examination and highlight advantageous embodiments of the invention.

Claim 12 is directed to advantageous embodiments in which R is a linear or branched C_1 - C_8 -alkyl radical, a C_3 - C_{10} -cycloalkyl, alkenyl, alkynyl, or a phenyl or derivative thereof. Support for Claim 12 can be found in the Application-as-filed, for example in Claim 1 as-filed and further on Page 6, line 1 through Page 7, line 15.

Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

Rejection Under 35 USC § 112

Claims 2 through 4 and 10 stand rejected under 35 U.S.C. 112 over valence issues associated with the phosphorus atom in formula I. The Office Action further expresses concern as to the meaning of the term "cyclo" as recited in Formula I. Claims 2 through 4 and 10 additionally stand rejected over the recitation "x = 4 or 5." Without addressing the merits of the foregoing rejections, Formula I has been deleted, as kindly suggested by the Examiner, solely to advance prosecution of the case.

Accordingly, Applicants respectfully request withdrawal of the foregoing rejection.

Claims 2 through 4 and 10 appear further rejected due to a lack of enablement for the recitation "R' ... is cyclic C₃-C₁₆ radicals, or aryl or heteroaryl."¹ Applicants respectfully submit that support for the foregoing recitation can be found in the Application-as-filed on Page 3, lines 11 through 13. The Office Action further makes reference to Archimica technical literature, and is thus presumably concerned with the breadth of the working examples. Applicants respectfully submit that constructive reduction to practice is sufficient under United States practice. When provided, testing may be used to demonstrate "the soundness of the principles of operation of the invention." *Wolter v. Belicka*, 161 USPQ 335, 341 (CCPA 1969).

Applicants respectfully submit that the tested subject matter, in which R' is propyl, is representative of the claimed subject matter and provides a basis for a reasonable conclusion that all claimed subject matter, i.e. R' is cyclic C₃ to C₁₆-alkyl radicals, or aryl or heteroaryl, will behave similarly.

Applicants further respectfully submit that the Application-as-filed contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention without undue experimentation. MPEP 2164.01. In

addition, the fact that experimentation may be complex does not necessarily make it undue. *Id.* Applicants thus respectfully submit that the recitation "R' ... is cyclic C₃-C₁₆ radicals, or aryl or heteroaryl" is supported by the specification, is well understood to one skilled in the art, and one skilled in the art could make or use the claimed compounds without undue experimentation.

Accordingly, Applicants respectfully request withdrawal of the foregoing rejection.

Claims 3, 4 and 10 stand rejected over the recitation "and/or." The Office Action expresses concern that R' cannot bond to all substituents simultaneously. Applicants respectfully submit that Claim 4 does not recite "and/or." Applicants further respectfully submit that the term "and/or" within Claims 3 and 10 is intended to convey that the R' groups on the cyclic phosphonic anhydride, of which there are three, may be chosen independently. Claims 3 and 10 have been amended to remove the term "and/or" and instead recite the term "independently."

Accordingly, Applicants respectfully request withdrawal of the foregoing rejection.

Claims 1 through 11 stand rejected as failing to comply with the written description requirement for the recitation that R and R' can be aryl or heteroaryl, due to a lack of definition for the terms "aryl" or "heteroaryl." Applicants respectfully submit that the Application-as-filed does, in fact, convey with reasonable clarity to one skilled in the art that Applicants were clearly in possession of the claimed invention as of the filing date sought.

"Aryl" and "heteroaryl" are extremely well-established terms of art. Applicants respectfully submit that the absence of definitions for well-established terms should not be the basis of a rejection under 35 USC 112, paragraph 1, for lack of adequate written description. MPEP 2163.II.A.1. Applicants further respectfully submit that information which is well known in the art need not be described in detail in the specification. MPEP 2163.

¹ As noted above, Claim 2 has been amended to remove the chemical formula associated with the cyclic phosphonic anhydride. For ease of discussion, however, remarks herein directed to R' are intended to refer to the 2,4,6 substitution moieties within the cyclic phosphonic anhydride.

Applicants also respectfully submit that additional definition was not required for the terms “aryl” and “heteroaryl,” regardless of their being well-established terms of art. The claimed invention is generally directed to processes to form nitriles or isonitriles by reacting carboxamides or formamides with cyclic phosphonic anhydrides with elimination of water. Chemical moieties auxiliary to the invention must have a corresponding written description only so specific as to lead one having ordinary skill in the art to that class of compounds. *In re Herschler*, 200 USPQ 711, 714 (CCPA 1979) Hence further definition for aryl or heteroaryl was not required.

The Office Action further urges that the specification does not provide support for R' or R being aryl or heteroaryl. Applicants respectfully submit that support for R' as aryl or heteroaryl may be found in the Application-as-filed on Page 3, lines 11 through 13, and that support for R as aryl or heteroaryl may be found in the Application-as-filed on Page 3, lines 1 through 2.

The Office Action at Page 4, first paragraph apparently indicates that support for R' and R as aryl or heteroaryl must be found within the working examples, as suggested by its reference to the exemplary compounds found in Examples 1 through 5. Applicants respectfully reiterate that constructive reduction to practice is sufficient under United States practice. When provided, testing may be used to demonstrate “the soundness of the principles of operation of the invention.” *Wolter v. Belicka*, 161 USPQ 335, 341 (CCPA 1969). Applicants respectfully submit that the tested subject matter is representative of the claimed subject matter and provides a basis for a reasonable conclusion that all claimed subject matter, i.e. subject matter in which R and R' are aryl or heteroaryl, will behave similarly.

According, Applicants respectfully request withdrawal of the foregoing rejection.

CONCLUSION

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 12 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that extensions of time or fees are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time and/or fees are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required is hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,

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